BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Certificate in Information Technology Pearson BTEC International Level 3 Subsidiary Diploma in Information Technology Pearson BTEC International Level 3 Foundation Diploma in Information Technology Pearson BTEC International Level 3 Diploma in Information Technology Pearson BTEC International Level 3 Extended Diploma in Information Technology
Unit number and title	**Unit 23: Emerging Trends and Technologies**
Learning aim(s)	Learning aim B: Design a cloud computing solution to meet identified requirements Learning aim C: Deploy a cloud computing solution to meet identified requirements
Assignment title	Designing and developing a cloud-based solution
Assessor	
Issue date	
Hand in deadline	

Vocational scenario or context	The owner of the company was happy with your report and has assigned you to a work on a project for one of the company's clients, Daer Books. Daer Books is a small independent bookseller that wants to increase its use of computer systems. You have been asked to design and deploy a cloud-based solution that will support the company's growing needs. Your solution must: • provide an e-commerce site to support sales • support business functions such as stock control and customer management • provide data tools to identify patterns and trends to inform management decisions (e.g. sales data, website traffic and analytics). You may also wish to consider any additional functionality you feel would be useful to the client, based on any research you may carry out as part of the initial proposal.

Task 1a	When you have gained approval, you should produce a set of software design documents, which will include as a minimum: • functional and non-functional requirements specifications • key performance indicators • data requirements design (e.g. entity relationship diagrams (ERDs), data dictionaries) • a review of cloud service providers that could be used • consideration and selection of tools provided by service providers to meet functional and non-functional requirements and KPIs • potential risks of the proposed solution and how these can be mitigated. Review your design documents with at least two other people to help you refine and improve your solution. You must keep a record of any feedback given along with any changes made. You should also write a justification for the design decisions you have made, and any changes actioned, showing how they have helped ensure the planned software solution will meet the requirements identified in the scenario.
Task 1b	After reviewing your designs, your manager has asked you to produce your cloud-based solution. Develop the solution based on your designs, ensuring that it makes use of a cloud-based technologies. You should make use of whichever tools and techniques are most appropriate for the nature of the proposed solution. Test and monitor your solution using a number of different methods, including different types of testing (e.g. functional, stress) and cloud monitoring tools. You should document your testing and review process showing the problems and errors that have been identified and addressed. Gather and analyse feedback from other people and use it to refine your solution and produce an updated version. Write an evaluation of your solution, considering its efficiency, effectiveness, and the extent to which it meets the requirements in the scenario. Your evaluation needs to be supported by evidence from the development and testing stages. Your evaluation should reach conclusions and suggest ways that the software solution could be developed in the future.

Checklist of evidence required	• Planning documentation for the solution • Record of feedback received about plans and actions taken • Completed solution • Testing and monitoring documentation • User feedback • Analysis of feedback and evidence of refinement of solution • Evaluation of the development, testing and refinement process

Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
BC.D2	Evaluate a refined cloud-based solution against identified requirements.
B.M2	Refine designs in response to feedback, justifying any changes made.
C.M3	Use iterative development methodologies to review and refine a cloud-based solution.
B.P3	Produce plans for a cloud computing solution that meets identified requirements.
B.P4	Review designs with others to identify and inform improvements.
C.P5	Develop a cloud-based solution to meet identified requirements.
C.P6	Test and monitor a cloud-based solution to identify and implement improvements.

Sources of information to support you with this Assignment	
Other assessment materials attached to this Assignment Brief	